



SEQUENCE LISTING

RECEIVED

MAY 02 2001

TECH CENTER 1600/2900

<110> Asanagi, Kaetsumi
Ohue, Chiharu
Iida, Kumiko
Yagi, Shintaro

<120> Method for Measurement of Hepatitis C Virus

<130> 594.352USWO

<140> 09/509,449

<141> 2000-03-28

<150> JP-10-216094

<151> 1998-07-30

<150> PCT/JP99/04129

<151> 1999-07-30

<160> 11

<170> PatentIn version 3.0

<210> 1

<211> 177

<212> PRT

<213> Hepatitis C virus

<400> 1

Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Pro Glu
1 5 10 15

Phe Met Gly Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr
20 25 30

Asn Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val
35 40 45

Gly Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg
50 55 60

Ala Thr Arg Lys Thr Ser Lys Arg Ser Gln Pro Arg Gly Gly Arg Arg
65 70 75 80

Pro Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro
85 90 95

Gly Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly
100 105 110

Trp Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp
115 120 125

Pro Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr
130 135 140

Cys Gly Phe Ala Asp Leu Met Gly Tyr Ile Phe Arg Val Gly Ala Phe
145 150 155 160

Leu Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu
165 170 175

Asp

<210> 2
<211> 160
<212> PRT
<213> Hepatitis C virus

<400> 2

Met Gly Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala
35 40 45

Thr Arg Lys Thr Ser Lys Arg Ser Gln Pro Arg Gly Gly Arg Arg Pro
50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Gly Gly Leu Gly Trp Ala Gly Trp
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Phe Arg Val Gly Ala Phe Leu
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp
145 150 155 160

<210> 3
<211> 20
<212> PRT
<213> Artificial

<220>

<223> Fused polypeptide including Hepatitis C virus sequence.

<400> 3

Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly Gly Val Tyr Leu
1 5 10 15

Leu Pro Arg Arg
20

<210> 4

<211> 10

<212> PRT

<213> Artificial

<220>

<223> Fused polypeptide including Hepatitis C virus sequence.

<400> 4

Gly Pro Arg Leu Gly Val Arg Ala Thr Arg
1 5 10

<210> 5

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Fused polypeptide including Hepatitis C virus sequence.

<400> 5

Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro Arg His Arg
1 5 10 15

Ser Arg Asn Val Gly
20

<210> 6

<211> 20

<212> PRT

<213> Artificial

<220>

<223> Fused polypeptide including Hepatitis C virus sequence.

<400> 6

Asp Pro Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu
1 5 10 15

Thr Cys Gly Phe
20

<210> 7
<211> 24
<212> DNA
<213> Artificial

<220>
<223> Primer for polymerase chain reaction.

<400> 7
gaattcatgg gcacgaatcc taaa

24

<210> 8
<211> 21
<212> DNA
<213> Artificial

<220>
<223> Primer for polymerase chain reaction.

<400> 8
ttagtcctcc agaaccgga c

21

<210> 9
<211> 16
<212> PRT
<213> Artificial

<220>
<223> Portion of Hepatitis C virus sequence.

<400> 9

Thr Asn Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile
1 5 10 15

<210> 10
<211> 1197
<212> DNA
<213> Artificial

<220>
<223> Nucleotide sequence coding for chimeric antigen.

<220>
<221> CDS
<222> (1)..(1188)

<400> 10
gaa ttc acc aaa gtg ccg gtt gct tat gcg gcc aaa ggt tat aag gtc
Glu Phe Thr Lys Val Pro Val Ala Tyr Ala Ala Lys Gly Tyr Lys Val
1 5 10 15

48

ctg gtt ctg gac ccg agc gtt gcc agc acc ctg ggt ttc ggc gcg tat

96

Leu Val Leu Asp Pro Ser Val Ala Ser Thr Leu Gly Phe Gly Ala Tyr
 20 25 30
 ctg agc aag gcc cat ggt gtg aac ccg aac atc cgc acg ggc atc cgt 144
 Leu Ser Lys Ala His Gly Val Asn Pro Asn Ile Arg Thr Gly Ile Arg
 35 40 45
 acc gtt acc acc ggt gct ccg gtg acc tat tcc acc tac ggt aaa tac 192
 Thr Val Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Tyr
 50 55 60
 ctg gcg gac ggc ggt tgc gcc gcc ggt gcg tac gat gtg atc gga tct 240
 Leu Ala Asp Gly Gly Cys Ala Gly Gly Ala Tyr Asp Val Ile Gly Ser
 65 70 75 80
 gga gag gag gtg gcc ctg tct aac act gga gag gtc ccc ttc tat ggc 288
 Gly Glu Glu Val Ala Leu Ser Asn Thr Gly Glu Val Pro Phe Tyr Gly
 85 90 95
 cgc gcg atc ccg atc gaa gcg atc aaa ggc ggt cgc cat ctg gtt ttc 336
 Arg Ala Ile Pro Ile Glu Ala Ile Lys Gly Gly Arg His Leu Val Phe
 100 105 110
 tgc cat agc aag gag aaa tgc gat gaa ctg gcg agc gcg ctg tcc gga 384
 Cys His Ser Lys Glu Lys Cys Asp Glu Leu Ala Ser Ala Leu Ser Gly
 115 120 125
 ttg ggt ctg aac gct gtg gca ttc tat cgc ggt ctg gac gtg agc att 432
 Leu Gly Leu Asn Ala Val Ala Phe Tyr Arg Gly Leu Asp Val Ser Ile
 130 135 140
 atc ccg acc cag gcc gat gtg gtt atc gtt agc acc gat gcg ctg atg 480
 Ile Pro Thr Gln Gly Asp Val Val Ile Val Ser Thr Asp Ala Leu Met
 145 150 155 160
 acc ggt ttt acc gcc gat ttt gac tca gtg gtc gac tgt aac aca tgc 528
 Thr Gly Phe Thr Gly Asp Phe Asp Ser Val Val Asp Cys Asn Thr Cys
 165 170 175
 atc acc cag gga tct gga ctg gta agc ttc gcg agc cat gtg ccg tac 576
 Ile Thr Gln Gly Ser Gly Leu Val Ser Phe Ala Ser His Val Pro Tyr
 180 185 190
 atc gag cag ggt atg caa ctg agc gaa caa ttt aag cag aag agc ctg 624
 Ile Glu Gln Gly Met Gln Leu Ser Glu Gln Phe Lys Gln Lys Ser Leu
 195 200 205
 ggt ctg ctg cag acc gcc acc aaa cag gcg gag gcg gcc gcc ccg gtg 672
 Gly Leu Leu Gln Thr Ala Thr Lys Gln Ala Glu Ala Ala Ala Pro Val
 210 215 220
 gtt ggc acc ccg aaa agc cgc cgt ccg gaa ggt cgt gcc tgg gcg caa 720
 Val Gly Thr Pro Lys Ser Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln
 225 230 235 240

ccg ggt acc atc atc ctg agc ggt cgt ccg gcg gtt gta ccg gat cgt 768
Pro Gly Thr Ile Ile Leu Ser Gly Arg Pro Ala Val Val Pro Asp Arg
245 250 255

gaa gtg ctg tat caa gaa ttt ctc gag gcc tct aga gcg gct ctc att 816
Glu Val Leu Tyr Gln Glu Phe Leu Glu Ala Ser Arg Ala Ala Leu Ile
260 265 270

gaa gag ggg caa cgg ata gcc gag atg ctg aag tcc aag atc gag ggc 864
Glu Glu Gly Gln Arg Ile Ala Glu Met Leu Lys Ser Lys Ile Gln Gly
275 280 285

tta ctg cag caa gcc tcc aag cag gcc caa gac ata aaa atc gac ggt 912
Leu Leu Gln Gln Ala Ser Lys Gln Ala Gln Asp Ile Lys Ile Asp Gly
290 295 300

acc ctg att att ccg aaa gat cgt cgc agc acc ggt aaa agc tgg ggt 960
Thr Leu Ile Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly
305 310 315 320

aaa ccg ggc ttc ctc atc gat agc ttg cat atc aac cag cga gcc gtc 1008
Lys Pro Gly Phe Leu Ile Asp Ser Leu His Ile Asn Gln Arg Ala Val
325 330 335

gtt gca ccg gac aag gag gtc ctt tat gag gct ttt gat gag atg gag 1056
Val Ala Pro Asp Lys Glu Val Leu Tyr Glu Ala Phe Asp Glu Met Glu
340 345 350

ctc gcc atg ggc acc aac ccg aaa ccg gag cgt aaa agc aag cgt aac 1104
Leu Ala Met Gly Thr Asn Pro Lys Pro Glu Arg Lys Ser Lys Arg Asn
355 360 365

acc aac cgt aaa ccg cag gat att aaa ttc ccg ggt agt ggt cag gtg 1152
Thr Asn Arg Lys Pro Gln Asp Ile Lys Phe Pro Gly Ser Gly Gln Val
370 375 380

gtg ggt ggt gtg tac ctg gtg ccg cgt cgt ggt ccg taaggatcc 1197
Val Gly Gly Val Tyr Leu Val Pro Arg Arg Gly Pro
385 390 395

<210> 11
<211> 396
<212> PRT
<213> Artificial

<220>
<223> Amino acid sequence coding for chimeric antigen.

<400> 11

Glu Phe Thr Lys Val Pro Val Ala Tyr Ala Ala Lys Gly Tyr Lys Val
1 5 10 15

Leu Val Leu Asp Pro Ser Val Ala Ser Thr Leu Gly Phe Gly Ala Tyr
20 25 30

Leu Ser Lys Ala His Gly Val Asn Pro Asn Ile Arg Thr Gly Ile Arg
35 40 45

Thr Val Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Tyr
50 55 60

Leu Ala Asp Gly Gly Cys Ala Gly Gly Ala Tyr Asp Val Ile Gly Ser
65 70 75 80

Gly Glu Glu Val Ala Leu Ser Asn Thr Gly Glu Val Pro Phe Tyr Gly
85 90 95

Arg Ala Ile Pro Ile Glu Ala Ile Lys Gly Gly Arg His Leu Val Phe
100 105 110

Cys His Ser Lys Glu Lys Cys Asp Glu Leu Ala Ser Ala Leu Ser Gly
115 120 125

Leu Gly Leu Asn Ala Val Ala Phe Tyr Arg Gly Leu Asp Val Ser Ile
130 135 140

Ile Pro Thr Gln Gly Asp Val Val Ile Val Ser Thr Asp Ala Leu Met
145 150 155 160

Thr Gly Phe Thr Gly Asp Phe Asp Ser Val Val Asp Cys Asn Thr Cys
165 170 175

Ile Thr Gln Gly Ser Gly Leu Val Ser Phe Ala Ser His Val Pro Tyr
180 185 190

Ile Glu Gln Gly Met Gln Leu Ser Glu Gln Phe Lys Gln Lys Ser Leu
195 200 205

Gly Leu Leu Gln Thr Ala Thr Lys Gln Ala Glu Ala Ala Ala Pro Val
210 215 220

Val Gly Thr Pro Lys Ser Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln
225 230 235 240

Pro Gly Thr Ile Ile Leu Ser Gly Arg Pro Ala Val Val Pro Asp Arg
245 250 255

Glu Val Leu Tyr Gln Glu Phe Leu Glu Ala Ser Arg Ala Ala Leu Ile
260 265 270

Glu Glu Gly Gln Arg Ile Ala Glu Met Leu Lys Ser Lys Ile Gln Gly
275 280 285

Leu Leu Gln Gln Ala Ser Lys Gln Ala Gln Asp Ile Lys Ile Asp Gly
290 295 300

Thr Leu Ile Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly
305 310 315 320

Lys Pro Gly Phe Leu Ile Asp Ser Leu His Ile Asn Gln Arg Ala Val
325 330 335

Val Ala Pro Asp Lys Glu Val Leu Tyr Glu Ala Phe Asp Glu Met Glu
340 345 350

Leu Ala Met Gly Thr Asn Pro Lys Pro Glu Arg Lys Ser Lys Arg Asn
355 360 365

Thr Asn Arg Lys Pro Gln Asp Ile Lys Phe Pro Gly Ser Gly Gln Val
370 375 380

Val Gly Gly Val Tyr Leu Val Pro Arg Arg Gly Pro
385 390 395